

Notice of Allowability

Application No.

09/987,788

Examiner

Liang-che Alex Wang

Applicant(s)

BRISSETTE, PATRICE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 5/31/2006.
2. ☒ The allowed claim(s) is/are 1, 3-16 (renumbered as 1-15).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

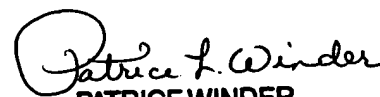
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


PATRICE WINDER
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. Claim 1, 3-16 are allowed.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with David J. Greer (Reg. No. 43,395) on 7/26/06.
4. The application has been amended as follow:
 1. (currently amended) A method for processing tandem connection monitoring information in a synchronous hierarchic network system, comprising:
 - (a) receiving, at a network element, a frame containing tandem connection monitoring information including a plurality of TCM fields, each TCM field being associated with one of a plurality of tandem connection trails having trail terminations at the network element; ~~and~~
 - (b) extracting from the frame the associated tandem connection monitoring information for each of the plurality of tandem connection trails having trail terminations at the network element ~~prior to;~~ and
 - (c) processing, in parallel, the tandem connection monitoring information for any of the tandem connection trails having trail terminations at the network element.
 2. (cancelled) The method of claim 1 including processing the extracted tandem connection monitoring information associated with the tandem connection trails in parallel.
 3. (original) The method of claim 1 wherein the tandem connection monitoring information associated with each of the tandem connection trails includes trail trace identification information.

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4. (original) The method of claim 3 wherein the trail trace information is broken up for transmission over a number of successive frames and includes source access point identifier information identifying a source of the tandem connection monitoring information.
5. (original) The method of claim 1 wherein the tandem connection monitoring information associated with each of the tandem connection trails includes a Bit-Interleaved Parity-8 (BIP-8) code computed at the source of each of the tandem connection trails based on payload information in a previously sent frame.
6. (original) The method of claim 1 wherein the tandem connection monitoring information associated with each of the tandem connections trails includes status bits carrying information indicating upstream conditions.
7. (original) The method of claim 1 wherein the number of tandem connection monitoring terminations at the network element is from two to six.
8. (original) The method of claim 1 wherein the frame includes a plurality of sub-fields each dedicated to carrying the tandem connection monitoring information associated with a pre-determined tandem connection monitored trail.
9. (currently amended) A network element configured to:
 - be connected in a synchronous hierarchic network and,
 - receive signals containing tandem connection monitoring information including a plurality of TCM fields, each TCM field being associated with one of a plurality of tandem connection monitoring terminations occurring at the network element, and
 - ~~further configured to extract, in parallel,~~ from the received signals, independently for each of the tandem connection monitoring terminations occurring at the network element, the tandem connection monitoring information associated therewith.
10. (original) The network element of claim 10 wherein the network element is configured to extract the tandem connection monitoring information prior to any modification of data included in the received signals.

11. (original) The network element of claim 10 wherein the received signals include frames having predetermined overhead locations dedicated to the tandem connection monitoring information.

12. (original) The network element of claim 10 further configured to monitor in parallel the extracted tandem connection monitoring information associated with tandem connection monitoring trails terminating at the network element.

13. (currently amended) In a synchronous hierarchical network having multiple levels of tandem connection monitoring, a method comprising the steps of:

(a) receiving at a network element a signal containing a frame having first tandem connection monitoring information in a first TCM field in respect of a first tandem connection monitoring trail terminating at the network element and second tandem connection monitoring information in a second TCM field in respect of a second tandem connection monitoring trail terminating at the network element; and

(b) processing at the network element the first tandem connection monitoring information in parallel with the second tandem connection monitoring information.

14. (original) The method of claim 13 wherein the signal includes tandem connection monitoring information for more than two tandem connection monitoring trails terminating at the network element and all of the tandem connection monitoring information in respect of each of the terminating connection monitoring trails is processed in parallel at the network element.

15. (original) The method of claim 14 wherein the tandem connection monitoring information associated with each of the tandem connection monitoring trails includes trail trace identification information.

16. (original) The method of claim 15 wherein the trail trace information is broken up for transmission over a number of successive frames and includes source access point identifier information identifying a source of the tandem connector monitoring information.

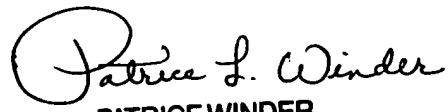
Reason for allowance

5. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest, individually or in combination, receiving a frame containing tandem connection monitoring information including a plurality of TCM filed, each being associated with one of plurality of tandem connection trails having trail terminations at the network element; and processing the tandem connection monitoring information in parallel in light of other features described in independent claims 1, 9 and 13.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)..

Liang-che Alex Wang *lcw*
July 31, 2006


PATRICE WINDER
PRIMARY EXAMINER